Oregon State Community Economic Revitalization Team

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Analysis of Timber Impacts on Oregon Communities

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Starting Place for Discussion

The April 1993.Forest Conference in Portland, Oregon, led by U.S. President Bill Clinton and Vice President Al Gore, resulted in an effort by the Federal Government to assist communities in the western portions of Washington, Oregon, and Northern California that were suffering economically due to the recent changes in management practices on northwest forest lands. This Presidential effort is called the Northwest Economic Adjustment Initiative. The Initiative sought to direct federal assistance to these communities and to obtain local input on the types of assistance needed by these communities. To obtain this input, the Initiative provided for the establishment of "state community economic revitalization teams" made up of local, state, federal, tribal, and private industry representatives who were familiar with local conditions and who could channel local input to the federal officials who are in charge of providing the federal assistance.

The Oregon State Community Economic Revitalization Team asked the analysts of the Oregon Economic Development Department and the Oregon Employment Department to prepare a list of communities in Oregon that would indicate the severity with which those communities had been or were likely to be economically impacted by the reduction in timber harvesting resulting from recent changes in the management of forest lands in Oregon. Initially, this effort focused on the area of the state with federal forest lands designated as habitat of the Northern Spotted Owl. The first list of "Timber Dependent Communities" was prepared in December of 1993. The list was updated in February and September of 1994. The current update expands the list to the entire state of Oregon, recognizing that many communities in Eastern Oregon have also been affected by changes in forest land management.

The composite index of timber impact on Oregon communities is an indicator of the severity of economic impact of forest land management changes on the listed communities. However, it has numerous weaknesses and should not be considered the only way to judge economic impact. The grouping of communities into small economic areas was done primarily on the basis of proximity and without the benefit of extensive knowledge of local commuting patterns or important community economic characteristics. The data used in generating the index of economic impact are the best that are available, but several data series are at least several years old and one data series has substantial accuracy problems. Finally, the methodology used to manipulate the data and arrive at an index number for each economic area is only one of many methodologies that could be used. Despite these weaknesses, we feel that the index is a good starting point for discussing and understanding the economic impacts of forest land management changes on Oregon's communities.

METHODOLOGY

Data Sources

This methodology makes use of both new data and previous studies that have examined economic and social conditions in Oregon's communities. The current index is based on the following data and studies:

(1) "Dependent Communities Desktop Analysis" prepared by the Forest Products Committee Staff, June 6, 1990. The Oregon Legislature's Joint Interim Committee on Forest Products Policy was chaired by Representative Bernie Agrons and met during the 1989-91 legislative interim. Two industry consultants (Paul F. Ehinger & Associates and Mater Engineering Ltd.), one economist (Ed Whitelaw), and the Oregon Economic Development Department's program manager for the

Community Initiatives program (Lynn Youngbar) provided detailed knowledge of communities and firms within the forest products industry. Committee staff performed the data analysis with assistance from the Employment Department

The criteria used in the Desktop Analysis were:

1. Community economic dependence on wood products
   - Percentage of forest related employment as a percentage of total employment
   - Number of firms in forest products, defined as Standard Industrial Classification codes 24 (lumber and wood products), 25 (furniture and fixtures), and 26 (paper and allied products)

2. Community Location
   - Proximity to major transportation facilities
   - Proximity to population centers

3. Forest products company viability
   - Timber supply
   - Management
   - Finance
   - Technical and physical status
   - Marketing

The analysts rated each economic region on the three criteria. They used a scale of 1 to 5 for degree of dependence in which "1" equaled a low effect on dependency and "5" equaled a high effect on dependency. The report displayed a matrix of the data aggregated by region. Communities within a region that did not conform to the region's rating were identified as outliers and given a separate rating.

(2) "Demographic and Economic Characteristics of Oregon's Timber-Dependent Communities" by Karen Seidel, Senior Research Associate, Bureau of Governmental Research and Service, University of Oregon, published in Oregon Profiles, Oregon State University Extension Service, June 1993. Ms. Seidel used four indicators from the 1990 U.S. Census of Population and Housing to judge the social well-being of Oregon's timber dependent communities. The four indicators are unemployment rate, percentage of workforce in professional and managerial occupations, percentage of adults with a high school education or less, and percentage of households with income below the poverty level. For each of the four indicators, Ms. Seidel ranked all Oregon communities identified by the Census. The summary rank for each community is the average of the community's four rankings. The lower the summary rank number, the better the community's performance on the indicators. In this regard, better means lower unemployment, higher percentage of workforce in professional and managerial occupations, lower percentage of adults with a high school education or less, and lower percentage of households with income below the poverty level. The communities' percentages for each of the four indicators and their summary ranks are reported in a data table in the article. The article included data only on communities that were identified as "Severely Affected Communities." The current update of the composite index of timber impacts on Oregon communities makes use of the same data series but is not limited to the "Severely Affected Communities."

(3) Economic Development Departments analysis on each community's percentage of total employment that is employed in the forest products industry. For the purpose of this analysis, forest products industry is broadly defined as Standard Industrial Classification codes 08 (forestry), 24 (lumber and wood products), 25 (furniture and fixtures), and 26 (paper and allied products). The analysis uses the most recent available twelve months of covered employment data. Covered employment data is information on those employees who are covered by unemployment insurance, and generally does not include those who are self-employed.

(4) Economic Development Department's Distressed Areas Analysis by Arthur Ayre, Economist. This indicator measures the change in communities' forest products employment and total employment. The list defines "distressed areas" as communities that have lost sufficient forest products employment since 1989 to equal at least 4% of their total 1990 employment and that have not added back at least two non-forest products jobs for each job lost in forest products since 1990. The analysis uses the most recent available twelve months of covered employment data. Covered employment data is information on those employees who are covered by unemployment insurance, and generally does not include those who are self-employed.

(5) Forest products mill closures or layoffs since July 1, 1988 as reported by the Oregon Employment Department or since 1989 as reported by Paul F. Ehinger & Associates. The Oregon Employment Department occasionally updates its list entitled "Closures/Cutbacks affecting Lumber and Wood Products Facilities Starting July 1, 1988." The most recent update was data provided by facsimile dated October 31, 1996. This list does not include confidential information. Paul F. Ehinger & Associates publishes its update entitled Forest Products Industry Report on Mill Closures, Operations. and Other Related Information twice a year. The taxed data is expected to appear in a published report by the close of 1996.

(6) Percentage of all unemployment insurance recipients in a community who were layed off from the forest products industry (defined as Standard Industrial Classification codes 08, 24, 25, and 26). This analysis uses the most recent twelve months' data and is considered by Employment Department analysts to be fairly accurate in identifying where the unemployed people live and from which industry they were layed off. This indicator adds more current and more accurate information to the composite index.

Calculations

The analysis of timber impacts on Oregon communities provides each region with a "composite index" number. The following numbered sections correspond to the data sources listed above and discuss the calculations used to arrive at numerical values for each of the six factors used in the methodology. We then averaged the numerical values for all available factors for each community, multiplied this average by 5 (to attain an index number comparable to prior "Timber Dependent Community" lists), and then grouped the communities together and averaged their individual scores. We calculated the average score for each community using only the data available for that community. For example, if the community had data on only two of the six factors, the average of the numerical values of these two factors was taken as the average score for the community.

(1) Using the Desktop Analysis data, we calculated each community's average "risk level" (from "1" to "5") from the community's risk level in each of the three factors analyzed in the Desktop Analysis.

(2) Using Ms. Seidel's analysis of 1990 Census data, we gave a community summary rank of less than 99 a value of "1", from 100 to 124 a value of "2", from 125 to 149 a value of "3", from 150 to 174 a value of "4", and 175 or greater a value of "5".

(3) Using the Economic Development Department's analysis on each community's percentage of total employment that is employed in the forest products industry, we gave a community with a percentage from 0% to 19% a value of "1", from 20% to 39% a value of "2", from 40% to 59% a value of "3", from 60% to 79% a value of "4", and from 80% to 100% a value of "5".

(4) Using the Economic Development Department's Distressed Areas Analysis, we gave every community identified as a "distressed area!' a value of "5". We gave all other communities no score for this factor and did not use this factor in calculating their average.

(5) Using the two sources of data on forest products industry closures and layoffs, we gave every community identified as having had a closure or layoff a value of "5". We gave all other communities no score for this factor and did not use this factor in calculating their average.

(6) Using the percentage of all unemployment insurance recipients in a community who were layed off from the forest products industry,,we gave those communities whose percentages were from 0% to 4.9% a value of "0", from 5% to 9.9% a value of "1", from 10% to 14.9% a value of "2", from 15% to 19.9% a value of "3", from 20% to 24.9% a value of "4", and 25% or greater a value of "5".

Further information on this methodology, please contact:

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RELATIVE TIMER IMPACT ON OREGON COMMUNITIES
RANKED BY COMPOSITE INDEX
Revised 11-15-96

Composite Index	Impacted Area
19.8	Middle Fork (Oakridge, Westfir)
19.2	South Umpqua (Myrtle Creek, Canyonville, Days Creek, Tiller, Riddle)
18.8	Coastal Lane (Florence, Cushman, Deadwood, Mapleton, Swisshome)
18.7	Crook (Powell Butte, Prineville)
18.5	Harney (Bums, Hines)
18.4	East Linn (Sweet Home, Foster, Cascadia, Lebanon)
18.4	South Lane (Cottage Grover, Saginaw, Creswell, Culp Creek, Lorane)
18.4	Lincoln (Eddyville, Tidewater, Toledo)
18.3	Camas (Camas Valley, Dillard, Tenmile)
18.3	Wheeler (Mitchell)
17.3	South Coos (Bandon, Coquille, Myrtle Point, Norway, Broadbent, Powers)
17.2	Jefferson (Madras, Warm Springs)
16.9	Union (Cove, Elgin, Imbler, La Grande, Union, Ukiah*)
16.9	Tillamook (Garibaldi, Tillamook, Hebo)
16.9	North Douglas (Curtin, Drain, Yoncalla, Elkton)
16.8	Central Douglas (Oakland, Sutherlin, Roseburg, Umpqua, Winchester, Winston)
16.7	Fern Ridge (Noti, Elmira, Veneta, Vaughn, Walton)
16.4	Coastal Douglas (Reedsport, Gardiner, Scottsburg)
16.1	South Grant (Canyon City, Dayville, John Day, Mount Vernon, Prairie City, Seneca)
16.0	Santiam (Lyons, Scio, Crabtree, Gates*, Mill City*, Idanha*, Jefferson*)
16.0	Klamath (Bonanza, Chemult, Crescent, Gilchrist, Chiloquin, Klamath Falls, Malin, Merrill)
15.9	North Grant (Fox, Kimberly, Long Creek, Monument, Ritter, Spray*)

* - An asterisk indicates that the community is separated from others in the same grouping by a county boundary.

Composite Index	Impacted Area
15.8	Yamhill (Carlton, Sheridan, Willamina, Grand Ronde*)
15.5	East Lane (Dexter, Fall Creek, Jasper, Lowell)
15.5	South Curry (Brookings, Gold Beach)
15.4	South Douglas (Azalea, Glendale, Wolf Creek*)
15.3	Baker (Baker City, Durkee, Haines, Hereford, Sumpter, Unity, North Powder*)
15.3	Wallowa (Enterprise, Imnaha, Joseph, Lostine, Wallowa)
14.8	Columbia (Clatskanie, St Helens, Vernonia)
14.7	East Douglas (Glide, Idleyld Park)
14.6	South Josephine (Cave Junction, Kerby, Selma, Williams)
14.3	Benton (Corvallis, Philomath, Blodgett, Monroe, Alsea)
14.2	Rogue (Grants Pass, Merlin, Rogue River*, Gold Hill*)
14.0	North Coos (Coos Bay, North Bend, Lakeside)
13.8	North Curry (Ophir, Port Orford, Langlois)
13.5	Clatsop (Warrenton, Astoria)
13.4	Deschutes (Bend, La Pine, Redmond)
13.3	North Jackson (Butte Falls, Prospect, Trail, Eagle Point)
13.3	Wasco (Dufur, Maupin, Tygh Valley)
13.2.	South Lake (Adel, Lakeview, New Pine Creek, Plush)
13.1	Polk (Dallas, Falls City, Monmouth)
12.8	Columbia (Echo, Hermiston, Irrigon, Stanfield, Umatilla, Boardman*)
12.8	South Linn (Brownsville, Halsey, Shedd, Harrisburg, Junction City*, Cheshire*, Coburg*)
12.2	Hood (Cascade Locks, Hood River)
12.2	Clackamas (Beavercreek, Boring, Estacada, Molalla, Mulino)
12.0	Central Linn (Albany, Millersburg, Tangent)
11.5	Snake River (Adrian, Jamieson, Nyssa, Ontario, Vale, Huntington*)

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Composite Index	Impacted Area
11.3	Metro Lane (Eugene, Pleasant Hill, Springfield, Thurston, Goshen, Marcola, Walterville)
11.3	Morrow (Ione, Heppner)
11.1	Metro Jackson (Ashland, Phoenix, Talent, Jacksonville, Medford, Central Point, White City)
10.8	Hells Canyon (Halfway, Oxbow, Richland)
10.0	McKenzie (Blue River, Vida)
10.0	Umatilla (Adams, Athena, Helix, Milton-Freewater, Pendleton, Pilot Rock)
9.5	East Marion (Aurora, Woodburn, Marion, Silverton, Stayton, Sublimity)
8.9	Gilliam (Arlington, Condon, Fossil*)
8.5	Sherman (Grass Valley, Kent, Moro, Rufus, Wasco)
8.5	North Lake (Paisley, Silver Lake, Summer Lake)
7.7	Malheur (Harper, Juntura, Westfall, Drewsey*)
6.3	Owyhee (Arock, Jordan Valley)

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